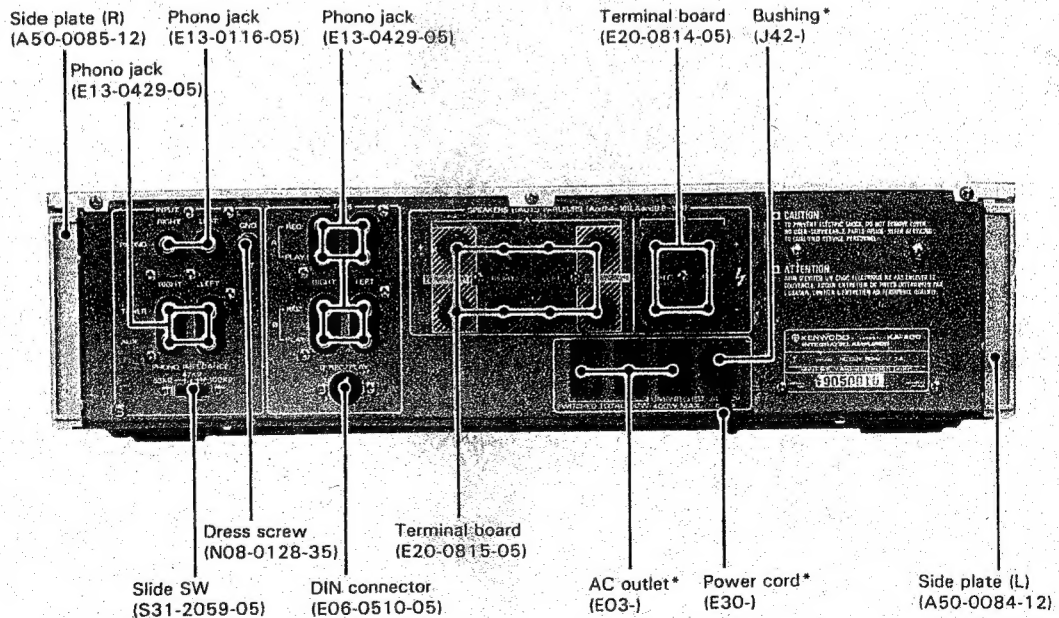
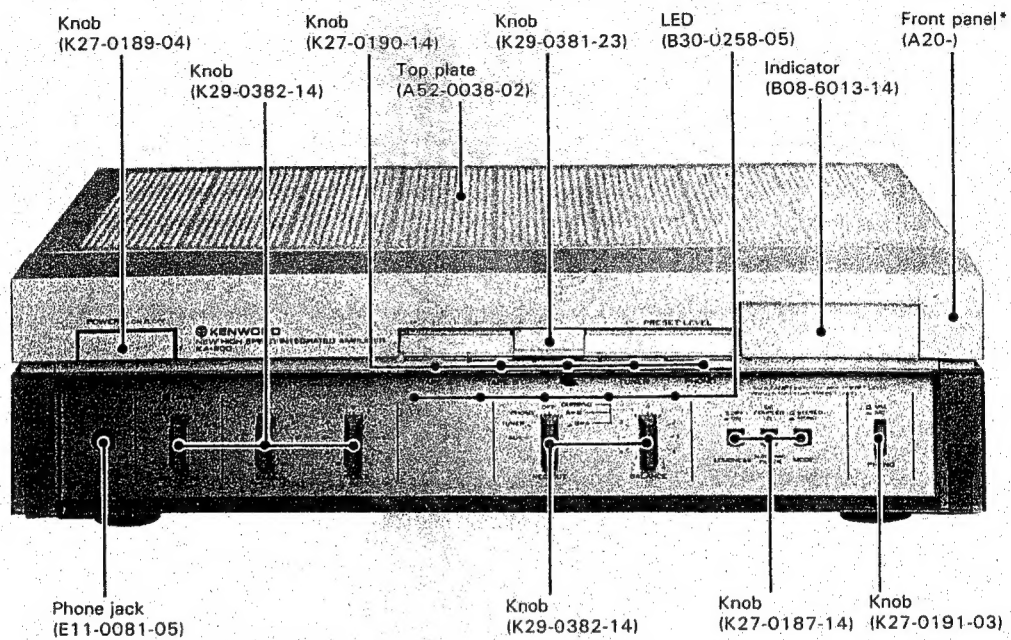




KA-800

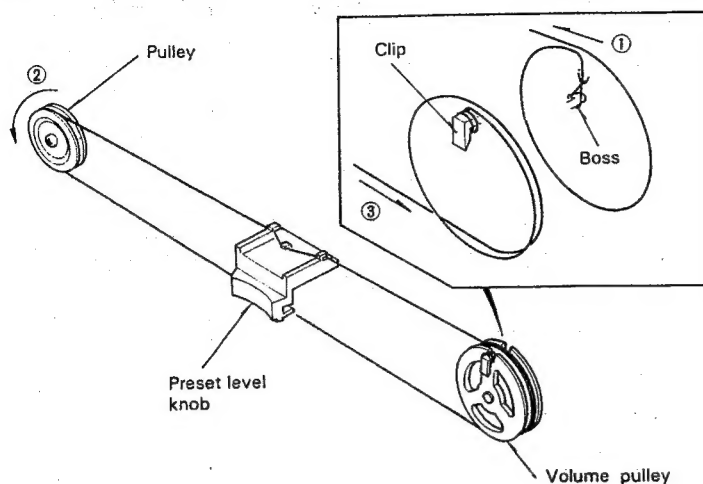
NEW HIGH SPEED INTEGRATED AMPLIFIER



*Refer to Parts List on page 12.

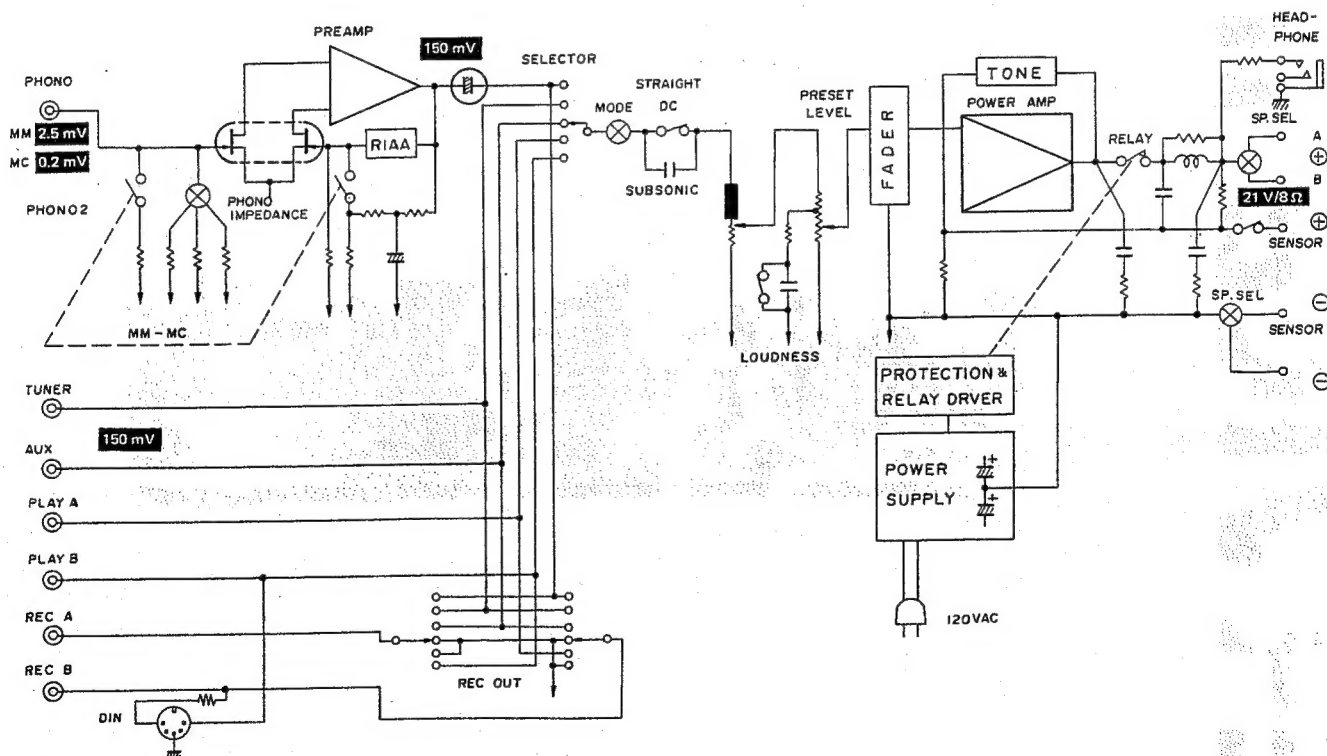
DIAL CORD STRINGING / BLOCK DIAGRAM

DIAL CORD STRINGING



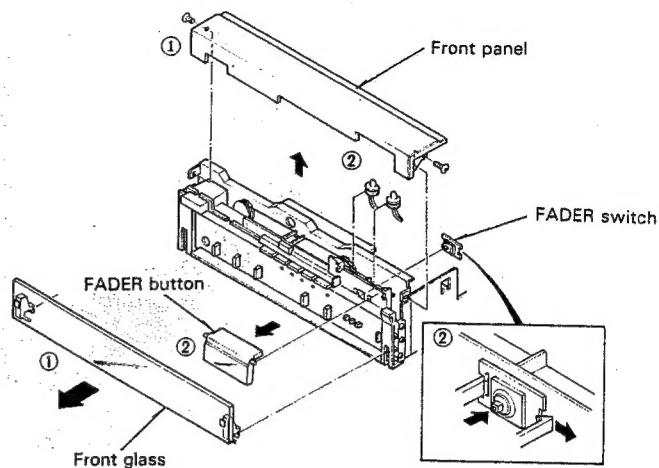
1. Tie the dial cord to the boss of volume pulley.
2. Set volume pulley to the volume shaft and turn it counterclockwise till it stops.
3. Dress the dial cord to volume pulley counterclockwise 1 turn starting from the upper side as shown (①).
4. Stretch and hook the dial cord to the pulley and dress it to the volume pulley from the lower side 1 and half turn (② ③)
5. Be sure to wind the end of the dial cord firmly to the clip of the volume pulley, so that it is tightly stretched.
5. Make sure that volume pulley is fully turned counterclockwise and fix the preset level knob by adhesive. Check that the groove of the preset level knob aligns with the 0 mark on the panel.

BLOCK DIAGRAM

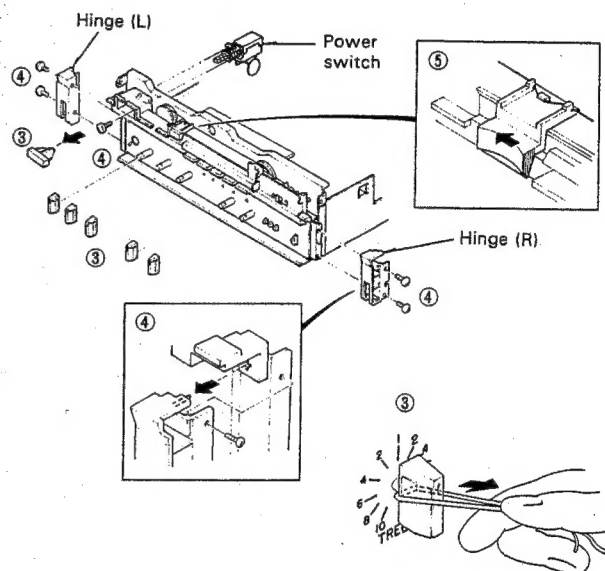


DISASSEMBLY FOR REPAIR

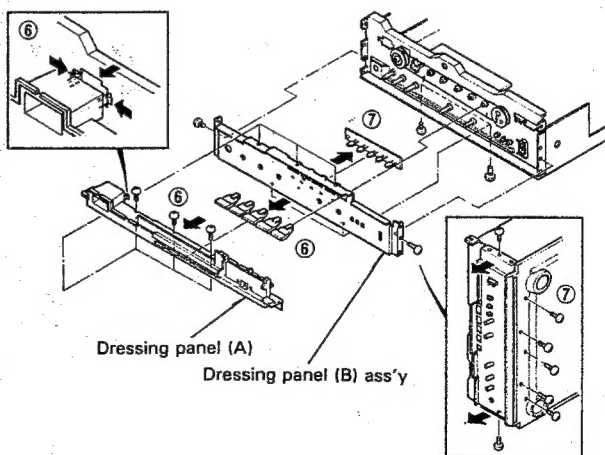
- ① Remove side plate, top plate, panel and the front-glass.
- ② Remove FADER button (parts name: Indicator) and FADER lamp. Now, you can remove the FADER switch (S4) pc board by spreading the claws outward and pushing the switch from the front.



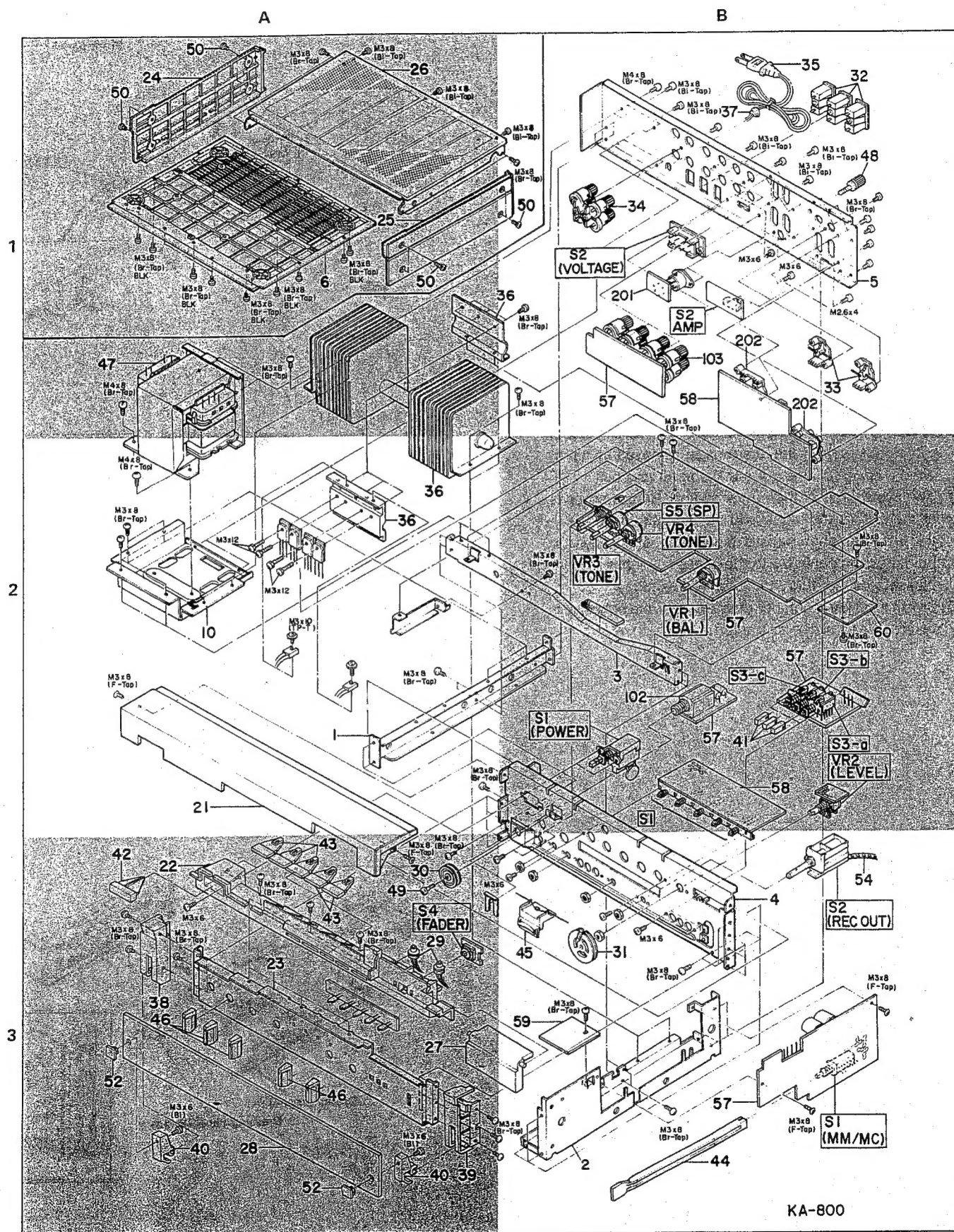
- ③ Remove the power switch button and knobs for BASS, TREBLE, BALANCE etc. by pulling them toward yourself. If they cannot be removed by hand, wind a covered wire around the shaft and pull.
- ④ Remove screws of the power switch. Remove screws at the side of the hinge and pull it to the direction of the arrow as shown. This hinge serves as a rivet to hold dressing panel (A) to the chassis. For this reason, please proceed after you remove this hinge.
- ⑤ Preset level knob can be removed after the adhesive is taken off and slid to the left.



- ⑥ Remove dressing panel (A) by pinching the claws inward and pushing it toward the front. Now, INPUT selector button can be removed.
- ⑦ Remove 5 screws at the front side of the bottom plate, also 2 screws at sides of dress panel ass'y and pull frontward. Now LED pc board for INPUT selector can be removed.



EXPLODED VIEW



M2.6 x 4:	N30-2604-46	M3 x 8 (F-Tap):	N88-3008-46	M3 x 12:	N30-3012-46
M3 x 6:	N30-3006-46	M3 x 8 (Br-Tap):	N87-3008-46	M4 x 8 (Br-Tap):	N87-4008-46
M3 x 6 (Bi):	N35-3006-41	M3 x 8 (Bi-Tap):	N89-3008-46		
M3 x 8 (TP-T):	N91-3008-46	M3 x 8 (Br-Tap) BLK:	N87-3008-45		

NOTE: Refer to Parts List on page 12.

CIRCUIT DESCRIPTION

What is Fader?!

When the power switch is turned ON, the INPUT LED lights (if none of the selector knob is pushed in, all SELECTOR LEDs will light); then, after a few seconds, the speaker protection relay is turned ON. When this occurs, sound volume gradually increases and the blue lamps built into the fader control knob increase in their brightness.

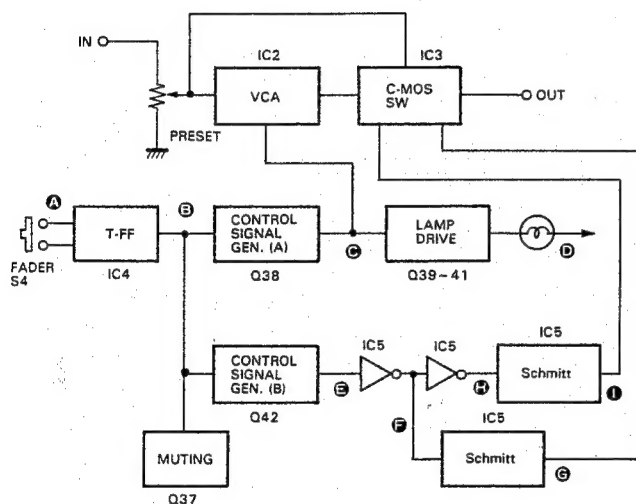
To decrease the volume to zero, lightly press the fader knob; volume will be decreased and the lamp will become dimmer. When the volume is zero, the lamp will be OFF.

When the fader control knob is pressed again, the volume gradually increases to the preset level along with the increase of brightness of the lamps.

To vary the volume, adjust the preset level knob.

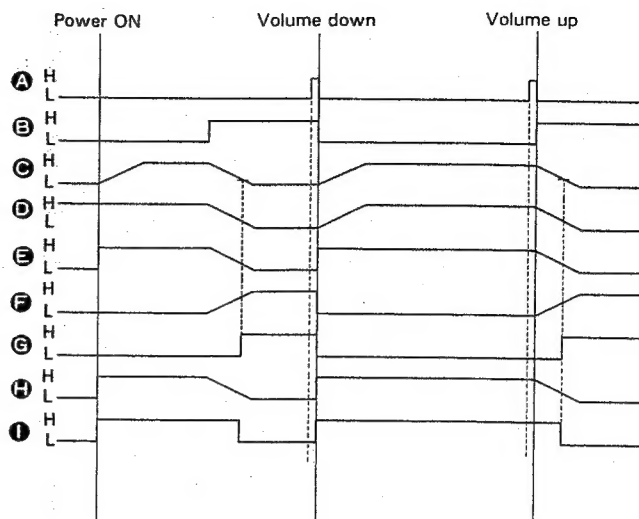
Fader circuit

A block diagram for the fader circuit is shown below.



< Block diagram of FADER >

The fader circuit is located between the volume control circuit and the power amplifier. The audio signal of the selected input (the volume level of which is preset by the preset level knob) is applied to the C-MOS switch IC directly, and is also applied to the C-MOS IC through VCA (Voltage Controlled Amplifier). The C-MOS switch IC selects one of these two signals according to the control signal.



< Timing Diagram >

Fader lamp operation

Immediately after power has been turned ON, the level at the output terminal 2 of the flip-flop IC (T-FF), IC4, is "H". However, the base level of Q38 is "L" until the protection relay is turned ON; this is because Q37 is OFF (see "Operation of Q37").

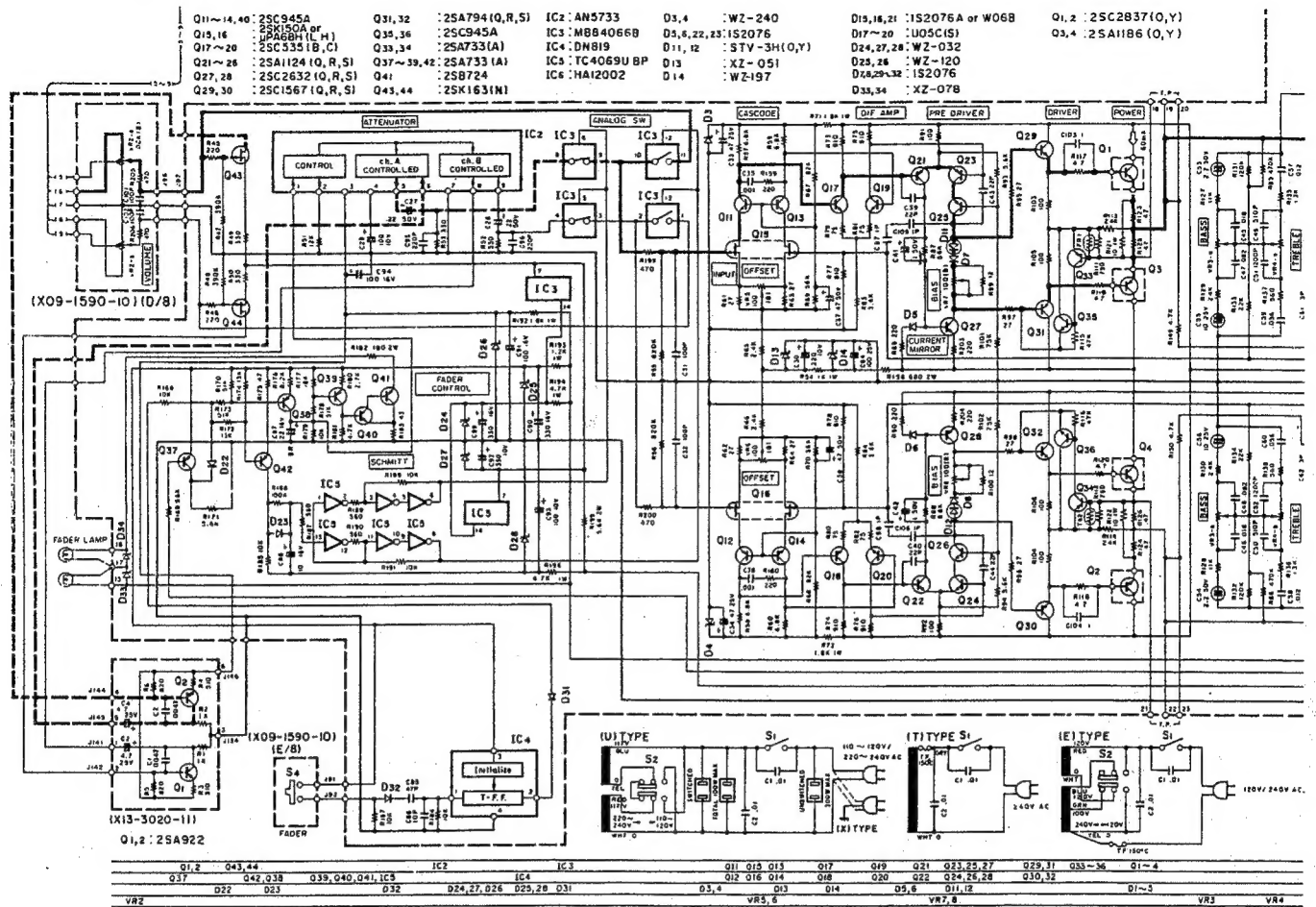
When the base level of Q38 is "L", Q38 is ON, Q39 is OFF and Q40 and Q41 are OFF. Therefore, the fader lamps are OFF. After a while, the protection relay and Q37 are turned ON. D22 is then reverse biased and the base level of Q38 becomes "H" because the output level of IC4 is "H". Q38 is therefore turned OFF.

Then, capacitor C87 connected to the collector of Q38 starts discharging, so that Q39~Q41 operate to gradually make the fader lamps brighter. The lamp current peaks when C87 is completely discharged and the fader control knob lights blue.

When fader switch S4 is pressed, the state of IC4 is inverted. All the states mentioned above are then inverted and the fader control knob becomes white.

The fader switch inverts the state of IC4 every time it is pressed.

CIRCUIT DESCRIPTION



Operation of Q37 (fader initializing transistor)

Immediately after the power has been turned ON, the base level of Q37 is "H" and Q37 is OFF. Q38 is ON at this time and so the fader lamps are OFF. Q42 is also ON so that operation of the fader circuit takes precedence.

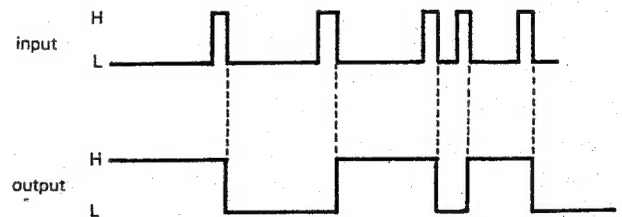
When the protection relay is turned ON, the base level of Q37 drops to "L" and Q37 is turned ON. D22 is then reverse biased to disconnect Q37 from other circuits.

When the power is turned OFF, the base level of Q37 becomes "H", the same condition as when the power was turned ON. Therefore, the power is immediately turned ON again and the fader circuit operates normally.

Thus, Q37 always allows the fader circuit to operate even if the power switch is turned ON and OFF repeatedly for some intervals.

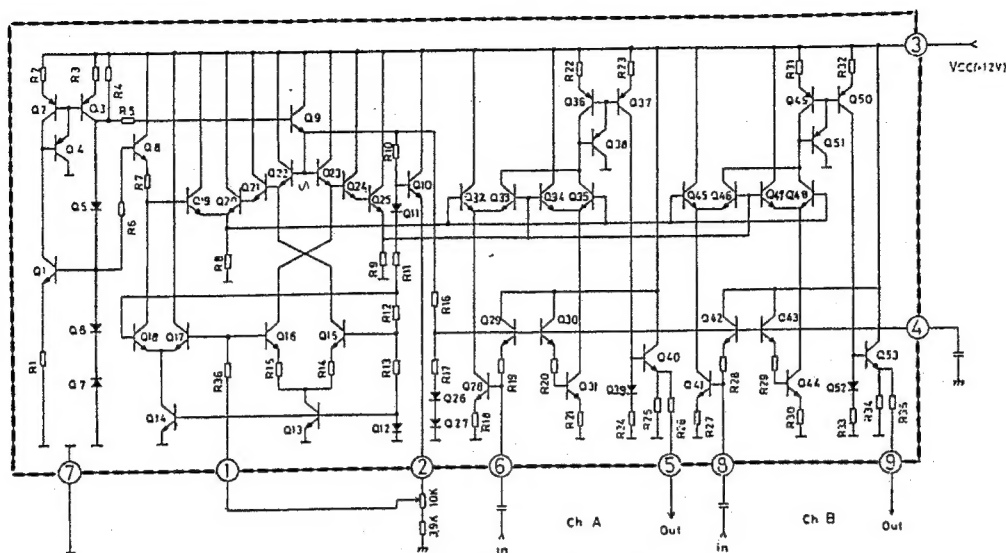
T-flip flop (DN819)

This type of flip flop is also called a trigger or toggle flip flop. There is one input terminal and one output terminal. A clock pulse signal is input and the output state is inverted every time a clock pulse is input. The initialized output state is "H". (See the schematic diagram below.)

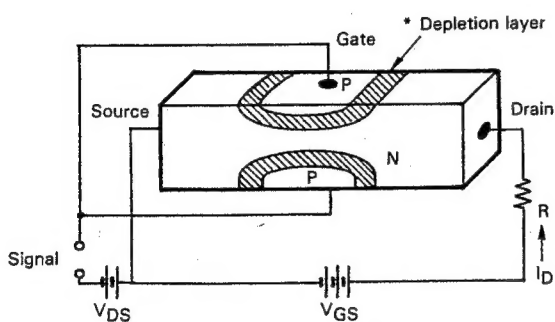


<Timing diagram>

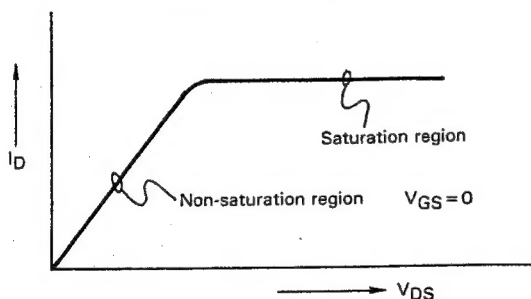
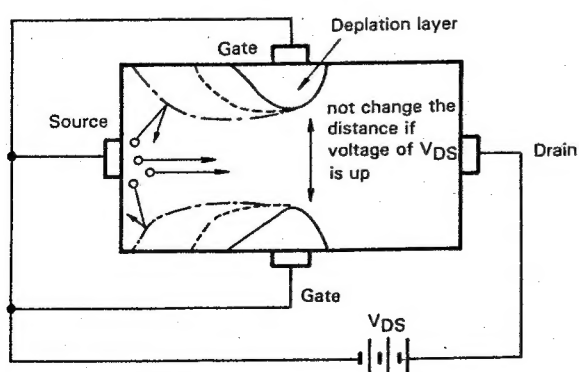
CIRCUIT DESCRIPTION



<Diagram of AN5733 internal circuit>



<Construction of FET>

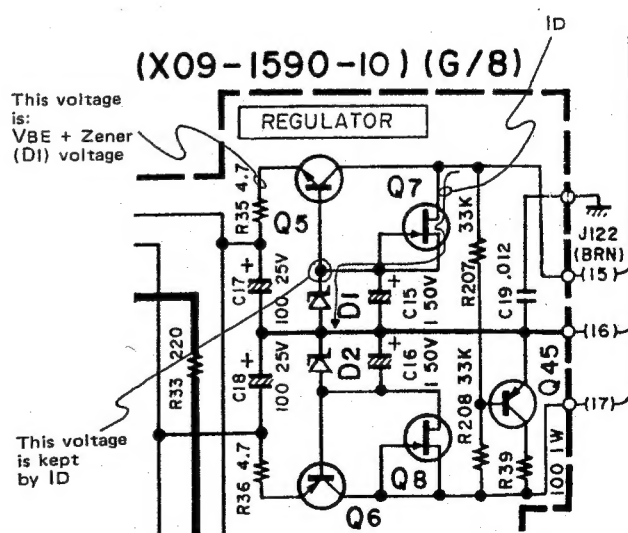
<Drain characteristics for $V_{GS}=0$ >

<Variation of the depletion layer>

Within the non-saturated region, drain current increases in proportion to the drain-source voltage V_{DS} . It saturates, however, when V_{DS} exceeds a certain level. The circuit, therefore, shows a constant current characteristic, because the thickness of the depletion layer does not vary. Even if V_{DS} is further increased, the current is limited to a certain level by the depletion layer.

In the model KA-800, V_{DS} is set to about 19 V to operate the FET as a constant current source.

This constant current circuit is used in the preamplifier voltage regulators so that regulator output is kept constant even if the B+ varies.



ADJUSTMENT / REGLAGES / ABGLEICH

POWER AMP OFFSET VOLTAGE ADJUSTMENT

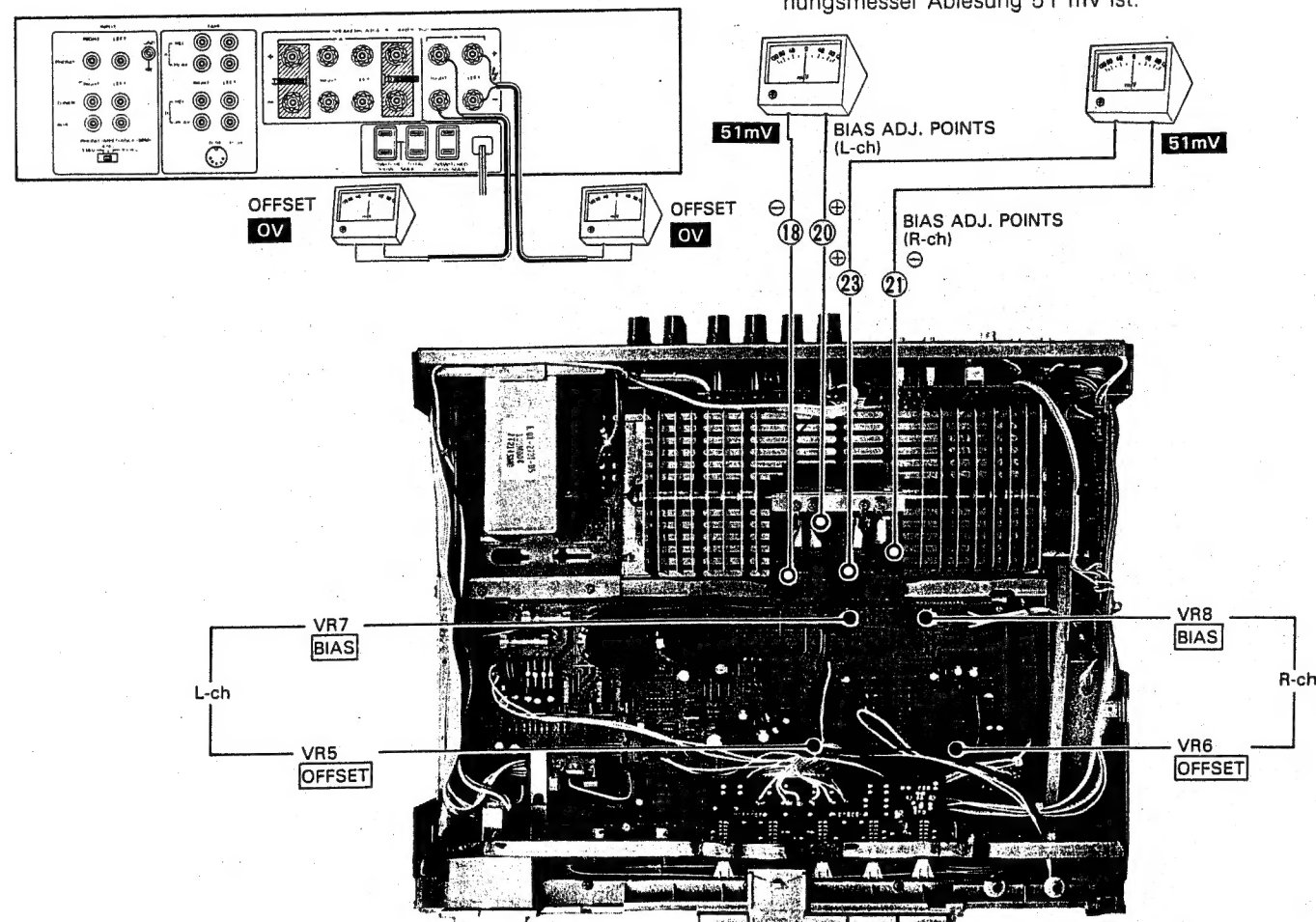
1. Set the PRESET LEVEL to "O" and the SPEAKERS switch to "B".
2. Connect the DC voltmeter between the positive and negative speaker terminals.
3. Adjust the trimming pot VR5 (VR6) for a 0V reading of the DC voltmeter.

REGLAGE DE LA TENSION DE DECALAGE (OFFSET)

1. Régler PRESET LEVEL sur "O" et l'interrupteur SPEAKERS "B".
2. Brancher le voltmètre à CC aux bornes de sortie + et -.
3. Régler le potentiomètre ajustable VR5 (VR6) pour que la tension de sortie soit nulle.

OFFSET-SPANNUNG DER ENDVERST ÄRKER

1. Den PRESET LEVEL auf "0" einstellen und den schalter SPEAKERS auf B.
2. Den Gleichspannungsmesser zwischen den Lautsprecherklemmen + und - der endverstärker anschließen.
3. Die Regelstange durch das Unterplattenloch einführen und den halbeingebetteten Widerstand VR5 (VR6) so regulieren, daß die Gleichspannungsmesser-Ablesung 0V ist.



BIAS CURRENT ADJUSTMENT

1. Set the PRESET LEVEL to "0" and the SPEAKERS switch to "B".
2. Connect the DC voltmeter between the adjusting points 18 and 20 (21 and 23) of power amp pc board ass'y (X09- 1590- 10).
3. Adjust the BIAS CURRENT trimming pot VR7 (VR8), for a 51 mV reading of the voltmeter.

REGLAGE DU COURANT DE POLARISATION

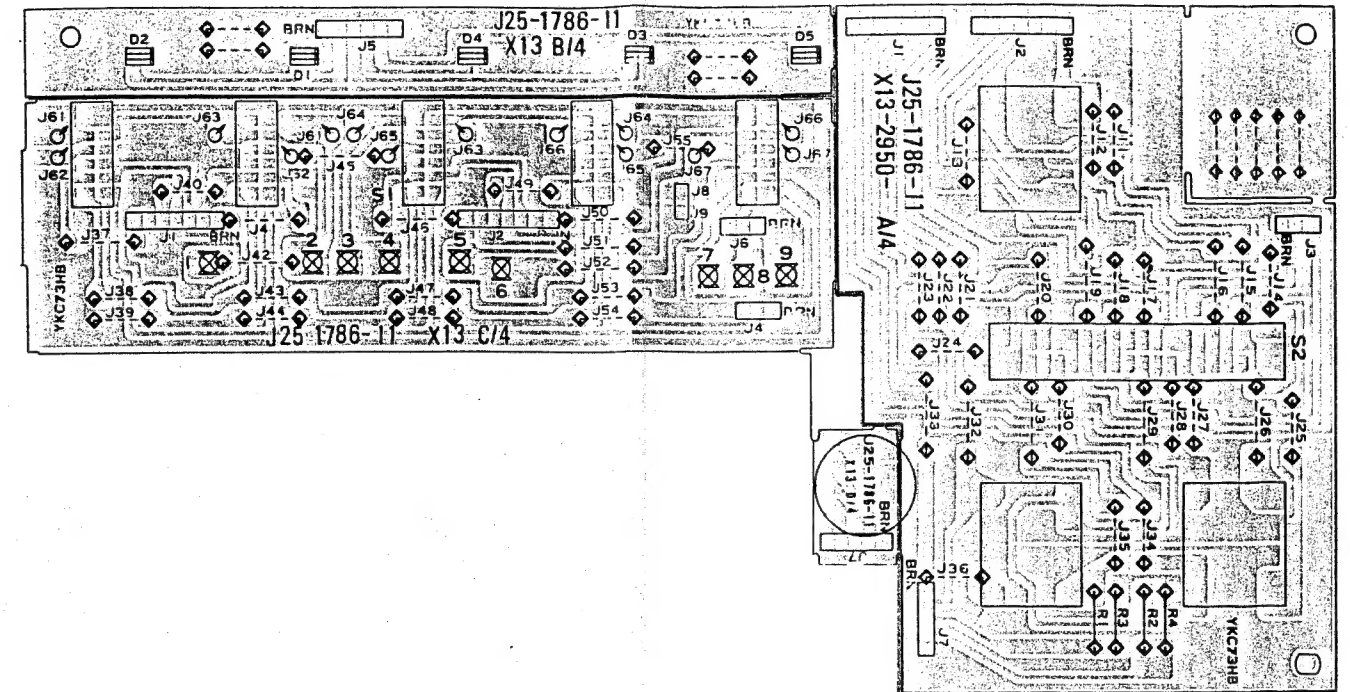
1. Régler PRESET LEVEL sur "0" et l'interrupteur SPEAKERS "B".
2. Brancher le voltmètre à CC aux points d'alignement. 18 et 20 (21 et 23), sur la plaque du circuit imprimé de l'ampli de puissance (X09- 1590- 10).
3. Régler le potentiomètre ajustable VR7 (VR8) de façon à ce que le voltmètre à CC indique 51 mV.

LEERLAUFS

1. Den PRESET LEVEL auf "0" einstellen und den schalter SPEAKERS auf B.
2. Den Gleichspannungsmesser zwischen der Regulierungspunkte 18 und 20 (21 und 23) der endverstärker anschließen.
3. Den halbeingebetteten Widerstand VR7 (VR8) der Leistungsverstärker so regulieren, daß die Gleichspannungsmesser Ablesung 51 mV ist.

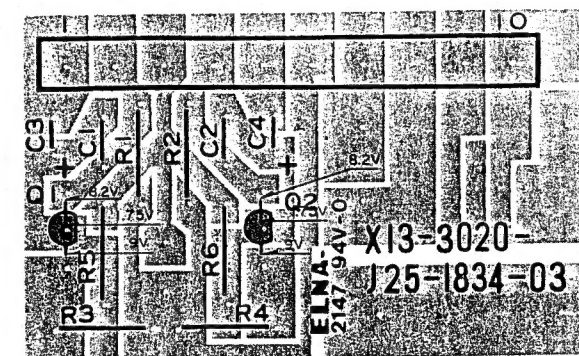
PC BOARD

▼ SUB (X13-2950-10)



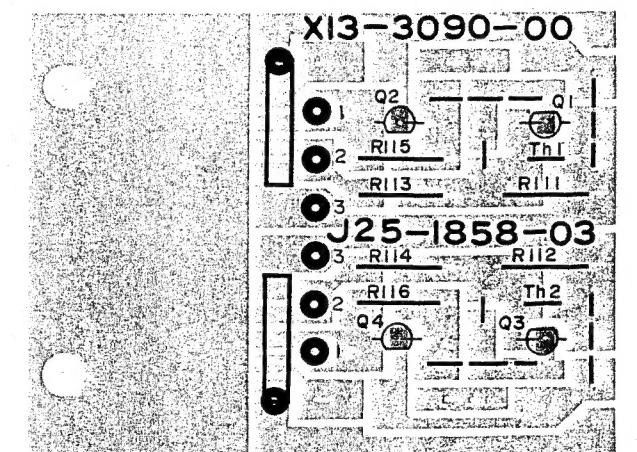
Refer to the schematic diagram for the value of resistors and capacitors.

▼ SUB (X13-3020-11)



Q1,2:2SA992

▼ SUB (X13-3090-00)

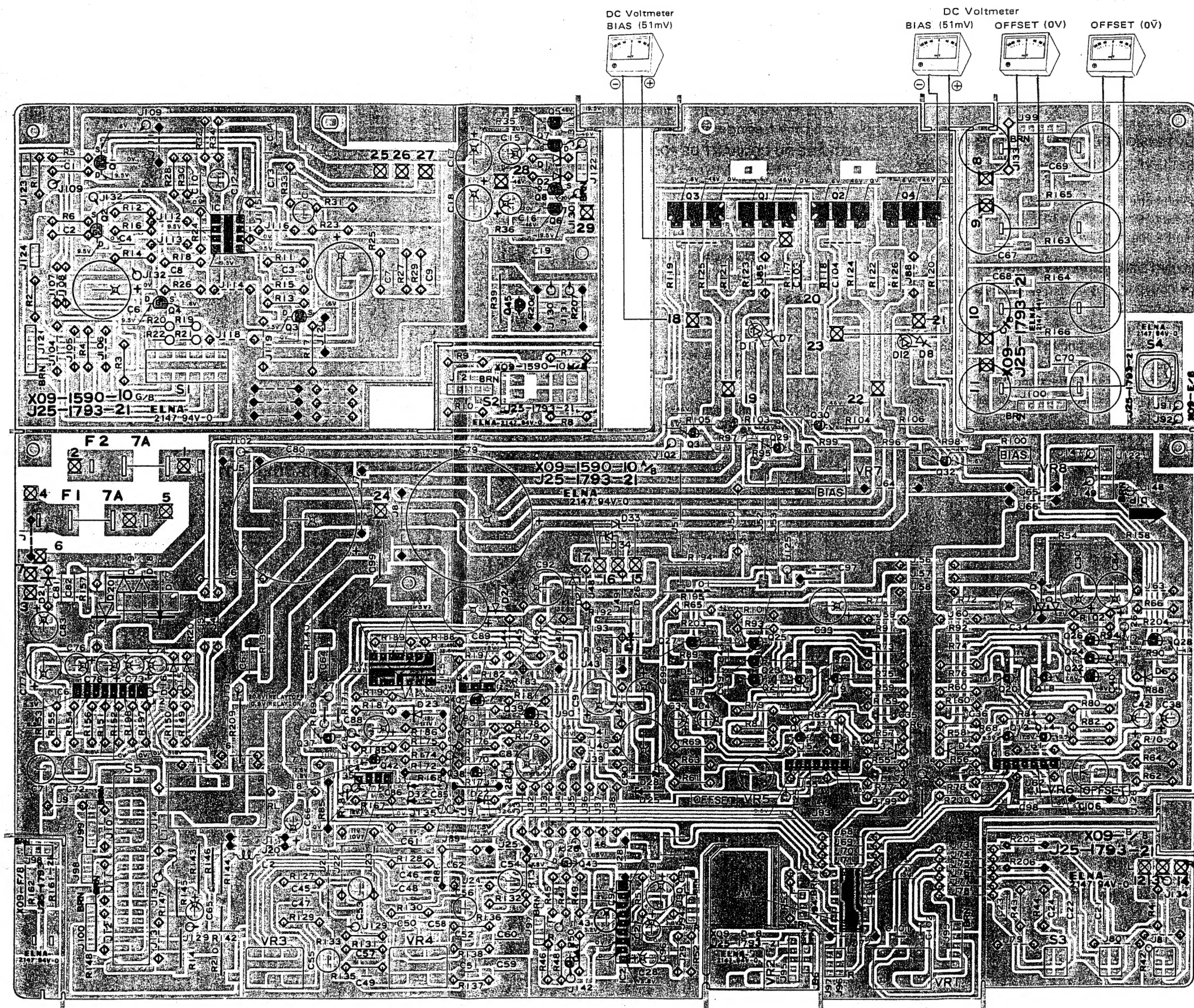


Q1,3:2SA733A
Q2,4:2SC945A

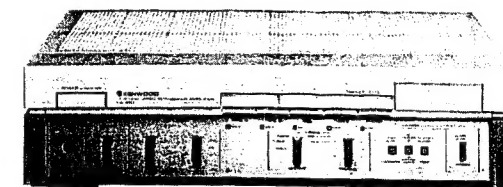
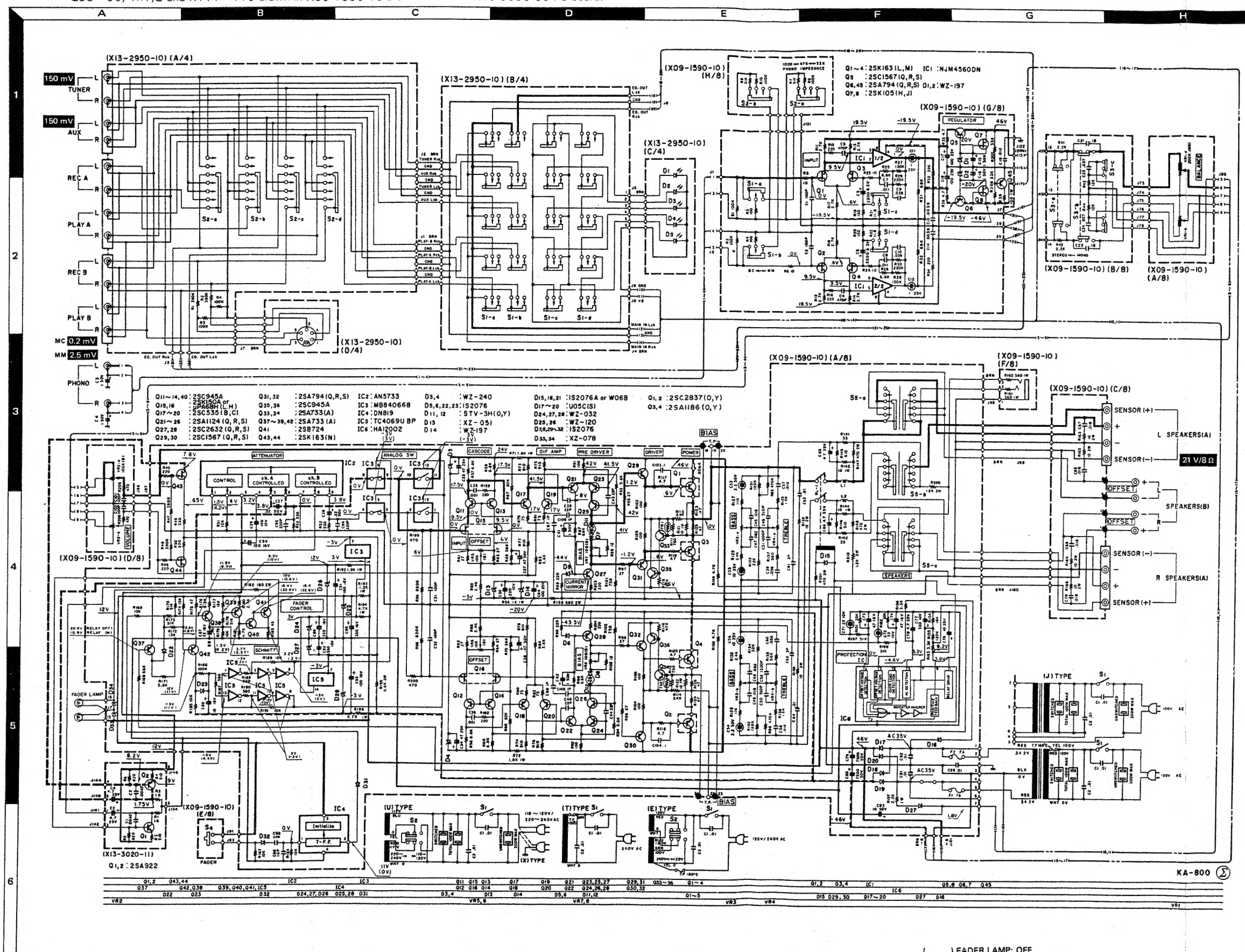
PC BOARD

Refer to the schematic diagram for the value of resistors and capacitors.

▼ AUDIO (X09-1590-10)



*Q33~36, Th1,2 and R111~116 drawn in X09-1590-10 are mounted on X13-3090-00 PC board.



SPECIFICATIONS

POWER AMPLIFIER SECTION

Power output
50 watts* per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.009% total harmonic distortion.

Both Channels Driven
into 8 ohms at 1,000 Hz 55 W + 55 W
Total Harmonic Distortion (20 Hz to 20 kHz)
AUX input to SPEAKER output 0.009% at rated power into 8 ohms
0.007% at 1/2 rated power into 8 ohms

Intermodulation Distortion 0.009% at rated power into 8 ohms
(60 Hz : 7 kHz + 4 : 1)
Damping Factor 100, at 100 Hz
Transient Response
Rise Time 1.0 μs
Slew Rate ± 100 V/μs

Frequency Response
(DC COUPLED at ON) DC to 350 kHz, +0 dB, -3 dB
(DC COUPLED at OFF) 18 Hz to 350 kHz, +0 dB, -3 dB
Speaker Impedance Accept 4 ohms to 16 ohms

Input Sensitivity/Impedance
PHONO (MM) 2.5 mV/33 k ohms, 47 k ohms and 100 k ohms
PHONO (MC) 0.2 mV/100 ohms
TUNER, AUX, TAPE A, B 150 mV/47 k ohms

Signal to Noise Ratio (IHF, A)
PHONO (MM) 84 dB for 2.5 mV input
90 dB for 5.0 mV input
96 dB for 10 mV input
PHONO (MC) 64 dB for 0.2 mV input
70 dB for 0.4 mV input
TUNER, AUX, TAPE A, B 105 dB for 150 mV input
Maximum Input Level Phono (MM) 200 mV (RMS), T.H.D. 0.005% at 1,000 Hz
(MC) 10 mV (RMS), T.H.D. 0.005% at 1,000 Hz

Output Level/Impedance
TAPE REC (Pin) 150 mV/220 ohms
(DIN) 30 mV/80 k ohms
Frequency Response for Phono RIAA standard curve ± 0.3 dB (30 Hz to 20,000 Hz)
Tone Control
Bass ± 10 dB at 100 Hz
Treble ± 10 dB at 10 kHz
Loudness Control (at -30 dB VOLUME Level) +10 dB at 100 Hz
Subsonic Filter 18 Hz, 6 dB/oct

GENERAL
Power Requirements 60 Hz 120 V (U.S.A. and Canada Model) or 50/60 Hz 110-120 V/220-240 V
Power Consumption 3 A (UL/CSA) 450 W (IEC)
AC Outlets Switched 1, Unswitched 1
Dimensions W 440 mm (17-5/16")
H 123 mm (4-7/32")
D 375 mm (14-3/4")
Weight (Net) 8.5 kg (18.7 lb)

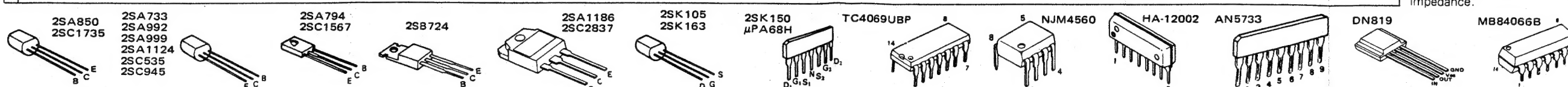
* Measured pursuant to Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier in U.S.A.

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

DC voltages are measured by VOM of 20 kΩ/V input impedance.



PARTS LIST

INSTRUCTION FOR PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名/規格	Re- marks 備考
①	1 3A	MAIN CHASSIS ASS'Y	
②	2 2A	FRONT CHASSIS	
③	3 2A	FLUOR DISPLAY HOLDER	
④	4 1A, 1B	FRONT PANEL	
⑤	5 1A	FRONT PANEL ASS'Y	
⑥	PS3	PUSH SW. (SELECTOR)	111
⑦	RS1	ROTARY SW. (FUNC.)	105
⑧	RL1	RELAY	FIG. 104

- ① Exploded view drawing No.
② Position in exploded view.
③ Symbol of new parts
④ Area to which parts are shipped. Example: A20-1666-08 is the part No. of FRONT PANEL ASS'Y for the "K" type products (for U.S.A.). When this column is blank, it means that the same type of parts (same parts No.) are used for the products shipped to all areas.
⑤ Reference No. in schematic diagram.
⑥ Abbreviation of "ceramic capacitor".
- All capacitors and resistors are listed using abbreviations.
- Abbreviations
- * Abbreviations of capacitors (Parts No. with initial letter "C").
- ELECTRO Electrolytic capacitor
LL-ELEC Low leak electrolytic capacitor
NP-ELEC Non-pole electrolytic capacitor
MICA Mica capacitor
POLYSTY Polystyrene capacitor
MYLAR Mylar capacitor
CERAMIC Ceramic capacitor
TANTAL Tantalum capacitor
MF Metallized film capacitor
MP Metallized paper capacitor
OIL Oil capacitor
- The unit "UF" is used in lieu of "μF".
- * Abbreviations of resistors (Parts No. with initial letters "R").
- RC Carbon composition resistor
RD Carbon film resistor
FL-PROOF RD Flame-proof carbon film resistor
RW Wire wound power resistor
FL-PROOF RS Flame-proof metal oxide film resistor
RN Metal film resistor
FUSE-RESIST Resistor with fuse function
- 2B Rated wattage 1/8W
2E Rated wattage 1/4W
2H Rated wattage 1/2W
3A Rated wattage 1W
3D Rated wattage 2W
3F Rated wattage 3W
3G Rated wattage 4W
3H Rated wattage 5W
- All resistor values are indicated with the unit (Ω) omitted.
- * Abbreviations common to capacitors and resistors.
- C ± 0.25pF (Used for capacitors only)
D ± 0.5pF (Used for capacitors only)
F ± 1%
G ± 2%
J ± 5%
K ± 10%
M ± 20%
Z + 80%, - 20% (Used for capacitors only)
P + 100%, - 0% (Used for capacitors only)
- Resistors RD (carbon composition resistors) are not listed in the parts list. For values, refer to the schematic diagram.
- * CODE's in X09-1590-10
K.P: X09-1590-10
U.M.X.H. UE: X09-1590-81
T.E: X09-1592-71

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名/規格	Re- marks 備考
KA-800			
1 2A	-	METALLIC FRAME(L)	
2 3B	-	METALLIC FRAME(R)	
3 2B	-	METALLIC FRAME(C)	
4 3B	-	SUB PANEL	
5 1B	-	REAR PANEL	
8 2A	-	MOUNTING HARDWARE	
-	041-0401-15	SPEAKER CORD (240M)	*
2021 2A	A20-1719-02	FRONT PANEL	*K
2021 2A	A20-1719-02	FRONT PANEL	PU
2021 2A	A20-1719-02	FRONT PANEL	MH
2021 2A	A20-1719-02	FRONT PANEL	UE
2021 2A	A20-1719-02	FRONT PANEL	XE
2021 2A	A20-1720-02	FRONT PANEL	T
2122 3A	A21-0329-12	DRESSING PANEL A	*
2223 3A	A21-0330-12	DRESSING PANEL B ASSY	*
236 1A	A40-0240-02	BOTTOM PLATE	*
24 1A	A50-0084-12	SIDE PLATE (L)	*
25 1A	A50-0085-12	SIDE PLATE (R)	*
26 1A	A52-0038-02	TOP PLATE	*
-	B46-0055-30	WARRANTY CARD	P
-	B46-0060-00	WARRANTY CARD	T
-	B46-0061-30	WARRANTY CARD	K
-	B46-0062-30	WARRANTY CARD	UH
-	B46-0062-30	WARRANTY CARD	UE
-	B46-0063-13	WARRANTY CARD	UH
-	B46-0063-13	WARRANTY CARD	UE
-	B46-0064-20	WARRANTY CARD	X
-	B50-3251-00	INSTRUCTION MANUAL	*K
-	B50-3252-00	INSTRUCTION MANUAL	PM
-	B50-3252-00	INSTRUCTION MANUAL	X
-	B50-3253-00	INSTRUCTION MANUAL	PU
-	B50-3253-00	INSTRUCTION MANUAL	MH
-	B50-3253-00	INSTRUCTION MANUAL	UE
-	B50-3253-00	INSTRUCTION MANUAL	X
-	B50-3254-00	INSTRUCTION MANUAL	M
-	B50-3255-00	INSTRUCTION MANUAL	E
-	B50-3264-00	INSTRUCTION MANUAL	T
-	B59-0018-00	INSTRUCTION PRINT	UH
-	B59-0018-00	INSTRUCTION PRINT	UE
27 3A	B08-6013-14	INDICATOR	*
28 3A	B10-0285-04	FRONT GLASS	*
29 3A	B30-0269-05	LAMP (8V, 0.075A)	*
C1 2	C91-0023-05	CERAMIC 0.01UF	AC250V
C1 2	C91-0023-05	CERAMIC 0.01UF	AC250V
C1 2	C91-0023-05	CERAMIC 0.01UF	AC250V
C1 2	C91-0023-05	CERAMIC 0.01UF	AC250V
C1 2	C91-0079-05	CERAMIC 0.01UF	AC125V
C3 4	C24-1710-59	ELECTRO 1UF	50WV
30 3A	D15-0073-14	PULLEY	*
31 3B	D15-0179-03	PULLEY	*
32 1B	E03-0018-05	AC OUTLET	KP
32 1B	E03-0018-05	AC OUTLET	UH
32 1B	E03-0018-05	AC OUTLET	HX
32 1B	E03-0018-05	AC OUTLET	UE
33 1B	E13-0116-05	PHONO JACK	
34 1B	E20-0815-05	TERMINAL BOARD	*
35 1B	E30-0181-05	POWER CORD	KP

PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名/規格	Re- marks 備考
35 1B	E30-0459-05	POWER CORD	E
35 1B	E30-0515-05	POWER CORD	UM
35 1B	E30-0515-05	POWER CORD	H
35 1B	E30-0515-05	POWER CORD	UE
35 1B	E30-0587-05	POWER CORD	T
35 1B	E30-0649-05	POWER CORD	X
36 2A	F01-0356-15	HEAT SINK	*
-	H01-3231-04	CARTON BOX	*U
-	H01-3231-04	CARTON BOX	MH
-	H01-3231-04	CARTON BOX	X
-	H01-3231-04	CARTON BOX	P
-	H01-3232-04	CARTON BOX	E
-	H01-3233-04	CARTON BOX	T
-	H01-3234-04	CARTON BOX	K
-	H01-3256-04	CARTON BOX	
-	H10-1563-02	POLYSTYRENE FIXTURE	
-	H20-0453-04	COVER	
-	H25-0078-04	BAG	UH
-	H25-0078-04	BAG	UE
37 1B	J42-0083-05	BUSHING	KP
37 1B	J42-0083-05	BUSHING	UM
37 1B	J42-0083-05	BUSHING	HT
37 1B	J42-0083-05	BUSHING	UE
37 1B	J42-0083-05	BUSHING	E
37 1B	J42-0085-05	BUSHING	X
38 3A	J50-0098-03	HINGE(L)	*
39 3A	J50-0099-03	HINGE(R)	*
40 3A	J50-0100-04	HINGE(A)	*
41 2B	K27-0187-14	KNOB (MODE, LOUD, DC)	*
42 3A	K27-0189-04	KNOB (POWER)	*
43 3A	K27-0190-14	KNOB (INPUT)	*
44 3B	K27-0191-03	KNOB (MM/MC)	*
45 3B	K29-0381-23	KNOB (LEVEL)	*
46 3A	K29-0382-14	KNOB (SP, TONE, BAL)	*
47 1A	L01-2191-05	POWER TRANSFORMER	*K
47 1A	L01-2191-05	POWER TRANSFORMER	P
47 1A	L01-2192-05	POWER TRANSFORMER	T
47 1A	L01-2195-05	POWER TRANSFORMER	UM
47 1A	L01-2195-05	POWER TRANSFORMER	HX
47 1A	L01-2195-05	POWER TRANSFORMER	UE
47 1A	L01-2196-05	POWER TRANSFORMER	E
48 1B	N08-0128-35	DRESSED SCREW	
49 3A	N09-0100-14	SCREW	
50 1A	N09-0363-05	SCREW	
52 3A	N14-0127-04	NUT	*
54 3B	S90-0043-05	REMOTE SWITCH SHAFT	*
S1	S40-1015-05	PUSH SWITCH	P
S1	S40-1022-05	PUSH SWITCH	UM
S1	S40-1022-05	PUSH SWITCH	HX
S1	S40-1022-05	PUSH SWITCH	UE
S1	S40-1024-05	PUSH SWITCH	K
S1	S40-1025-05	PUSH SWITCH	TE
S2	S31-2050-05	SLIDE SWITCH (VOLTAGE)	UM
S2	S31-2050-05	SLIDE SWITCH (VOLTAGE)	XH
S2	S31-2050-05	SLIDE SWITCH (VOLTAGE)	E
S2	S31-2050-05	SLIDE SWITCH (VOLTAGE)	UE
Q1 2	V03-2837-10	2SC2837(O,Y)	*
Q3 4	V01-1186-10	2SA1186(O,Y)	*

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名/規格	Re- marks 備考
57 2B	X09-1590-10	AUDIO AMP PCB ASSY	*K
57 2B	X09-1590-10	AUDIO AMP PCB ASSY	P
57 2B	X09-1590-81	AUDIO AMP PCB ASSY	UM
57 2B	X09-1590-81	AUDIO AMP PCB ASSY	HX
57 2B	X09-1590-81	AUDIO AMP PCB ASSY	UE
57 2B	X09-1590-81	AUDIO AMP PCB ASSY	
57 2B	X09-1592-71	AUDIO AMP PCB ASSY	TE
58 1B	X13-2950-10	SUB PCB ASSY	*
59 2B	X13-3020-11	SUB PCB ASSY	*
60 2B	X13-3090-00	SUB PCB ASSY	UM
60 2B	X13-3090-00	SUB PCB ASSY	HE
AUDIO (X09-1590-10)			
C1 2	C71-1710-15	CERAMIC 100PF	J
C3 4	C52-1747-16	CERAMIC 470PF	K
C5 6	C24-0822-87	ELECTRO 2200UF	6.3WV
C7 8	C45-1711-35	POLYSTY 0.011UF	J
C9 10	C46-1739-35	MYLAR 0.039UF	J
C11 12	C26-1410-57	NP-ELEC 1UF	25WV
C13 14	C46-1739-25	MYLAR 0.0039UF	K
C15 16	C24-1710-59	ELECTRO 1UF	50WV
C17 18	C24-1410-71	ELECTRO 100UF	25WV
C19	C46-1712-35	MYLAR 0.012UF	K
C21 22	C46-1718-46	MYLAR 0.18UF	K
C23 24	C46-1727-36	MYLAR 0.027UF	K
C27 28	C25-1722-47	ELECTRO 0.22UF	50WV
C29	C24-1010-79	ELECTRO 100UF	10WV
C30	C24-1022-71	ELECTRO 220UF	10WV
C31 32	C71-1710-15	CERAMIC 100PF	J
C33 34	C25-1447-67	ELECTRO 47UF	25WV
C35 36	C46-1710-26	MYLAR 0.001UF	K
C37 38	C25-1747-47	ELECTRO 0.47UF	50WV
C39 40	C71-1722-06	CERAMIC 22PF	J
C41 42	C24-1710-59	ELECTRO 1UF	50WV
C43 44	C71-1722-06	CERAMIC 22PF	J
C45 46	C46-1718-35	MYLAR 0.018UF	K
C47 48	C46-1782-35	MYLAR 0.082UF	K
C49 50	C48-1751-15	POLYSTY 510PF	J
C51 52	C46-1727-25	MYLAR 0.0027UF	K
C53 54	C26-1722-57	NP-ELEC 2.2UF	50WV
C55 56	C26-1410-67	NP-ELEC 10UF	25WV
C57 58	C46-1712-35	MYLAR 0.012UF	K
C59 60	C46-1756-35	MYLAR 0.056UF	K
C61 62	C71-1708-02	CERAMIC 8PF	D
C63 64	C46-1710-35	MYLAR 0.01UF	K
C65 66	C24-6547-57	ELECTRO 4.7UF	35WV
C67 70	C46-1218-35	MYLAR 0.018UF	K
C71 72	C26-1022-67	NP-ELEC 22UF	10WV
C73 74	C25-1247-67	ELECTRO 47UF	16WV
C76	C25-1410-67	ELECTRO 10UF	25WV
C77	C24-1033-71	ELECTRO 330UF	10WV
C78	C24-6547-57	ELECTRO 4.7UF	35WV
C79 80	C90-0550-05	ELECTRO 7500UF	50WV
C81 82	C54-2710-39	CERAMIC 0.01UF	P
C83	C24-1710-69	ELECTRO 10UF	50WV
C84	C24-1410-71	ELECTRO 100UF	25WV
C85	C71-1747-05	CERAMIC 47PF	J
C86	C71-1710-02	CERAMIC 10PF	D
C87	C25-1222-67	LL-ELEC 22UF	16WV
C88	C25-1210-67	LL-ELEC 10UF	16WV
C89 90	C25-1233-77	ELECTRO 330UF	16WV
C91	C25-1210-77	ELECTRO 100UF	16WV
C92	C24-1033-71	ELECTRO 330UF	10WV
C93	C24-1010-79	ELECTRO 100UF	10WV

PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
C94 C95 ,96 C97 ,98 C99 C101,102	C25-1210-77 C71-1722-15 C71-1701-02 C55-1710-38 C71-1710-15	ELECTRO 100UF 16WV CERAMIC 220PF J CERAMIC 1PF C CERAMIC 0.01UF Z CERAMIC 100PF J	
C103,104 C105,106	C46-1710-45 C71-1701-02	MYLAR 0.1UF K CERAMIC 1PF C	
102 28 103 18	E11-0081-05 E20-0814-05	PHONE JACK TERMINAL BOARD	*
F1 ,2 F1 ,2 F1 ,2 F1 ,2 F1 ,2	F05-6322-05 F05-7025-05 F05-7025-05 F05-7025-05 F05-7026-05	FUSE (6.3A) FUSE (7A) FUSE (7A) FUSE (7A) FUSE (7A)	TE UM HX UE KP
-	J13-0055-05	FUSE HOLDER	
L1 ,2	L39-0085-05	COIL	
R19 ,20 R21 ,22 R35 ,36 R39 R54	R48-2215-15 R48-2118-83 R43-1247-95 R47-5410-15 R47-5410-25	METAL 150 J 2E METAL 11.8 J 2E FL-PROOF RD4.7 J 2E FL-PROOF RS100 J 3A FL-PROOF RS1K J 3A	
R71 ,72 R73 ,76 R87 ,88 R89 ,90 R91 ,92	R47-5418-25 R43-1291-15 R43-1256-25 R43-1222-15 R43-1210-15	FL-PROOF RS1.8K J 3A FL-PROOF RD910 J 2E FL-PROOF RD5.6K J 2E FL-PROOF RD220 J 2E FL-PROOF RD100 J 2E	
R95 -98 R99 ,100 R103-106 R117-120 R121,122	R43-1227-05 R43-1212-05 R43-1210-15 R43-1247-95 R47-5410-05	FL-PROOF RD27 J 2E FL-PROOF RD12 J 2E FL-PROOF RD100 J 2E FL-PROOF RD4.7 J 2E FL-PROOF RS10 J 3A	
R123-126 R139,140 R141,142 R143,144 R145,146	R92-0203-05 R47-5510-05 R43-1233-05 R47-5410-05 R43-1251-15	CEMENT 0.47 K 3H FL-PROOF RS10 J 3D FL-PROOF RD33 J 2E FL-PROOF RS10 J 3A FL-PROOF RD510 J 2E	
R147,148 R153 R157 R158 R161,162	R47-5547-15 R47-5433-25 R47-5422-25 R47-5568-15 R47-5456-15	FL-PROOF RS470 J 3D FL-PROOF RS3.3K J 3A FL-PROOF RS2.2K J 3A FL-PROOF RS680 J 3D FL-PROOF RS560 J 3A	
R163-166 R182 R183 R192 R193	R47-5510-05 R47-5518-15 R43-1243-05 R47-5418-25 R47-5412-25	FL-PROOF RS10 J 3D FL-PROOF RS180 J 3D FL-PROOF RD43 J 2E FL-PROOF RS1.8K J 3A FL-PROOF RS1.2K J 3A	
R194 R195 R196 R201 R203,204	R47-5447-25 R47-5556-25 R47-5447-25 R47-5547-15 R43-1222-15	FL-PROOF RS4.7K J 3A FL-PROOF RS5.6K J 3D FL-PROOF RS4.7K J 3A FL-PROOF RS470 J 3D FL-PROOF RD220 J 2E	
R209,210 VR1 VR2 VR3 ,4 VR5 ,6	R47-5512-25 R06-5062-05 R06-5063-05 R06-4051-05 R12-0502-05	FL-PROOF RS1.2K J 3D POTENTIOMETER BAL POTENTIOMETER LEVEL POTENTIOMETER TONE TRIMMING POT OFFSET	*
VR7 ,8	R12-0077-05	TRIMMING POT BAIS	*
RL1 S1	S51-2045-05 S40-4033-05	RELAY PUSH SWITCH MM/MC	*

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
S2 S3 S4 S5	S31-2059-05 S42-3046-05 S40-1012-05 S29-1129-05	SLIDE SWITCH IMPEDANCE PUSH SWITCH PUSH SWITCH FADER ROTARY WAFER SW SP	*
D1 ,2 D3 ,4 D5 ,6 D7 ,8 D11 ,12	V11-4100-30 V11-0287-05 V11-0271-05 V11-0271-05 V21-0015-05	WZ-197 WZ-240 1S2076 1S2076 STV-3H(O,Y)	
D13 D14 D15 ,16 D17 -20 D21	V11-4103-60 V11-4100-30 V11-0273-05 V11-2100-10 V11-0273-05	XZ-051 WZ-197 1S2076A,W06B U05C(S) 1S2076A,W06B	
D22 ,23 D24 D25 ,26 D27 ,28 D31 ,32	V11-0271-05 V11-4172-26 V11-4100-40 V11-4172-26 V11-0271-05	1S2076 WZ-032 WZ-120 WZ-032 1S2076	
D33 ,34 IC1 IC2 IC3 IC4	V11-4110-70 V30-0344-40 V30-0514-10 V30-0516-10 V30-0515-10	XZ-078 NJM4560D-N AN5733 M884066B DN819	*
IC5 IC6 Q1 -4 Q5 Q6	V30-0297-20 V30-0291-10 V09-0144-60 V03-0507-05 V01-0221-05	TC4069UBP HA12002 2SK163(L,M) 2SC1567(Q,R,S) 2SA794(Q,R,S)	
Q7 ,8 Q11 -14 Q15 ,16 Q17 -20 Q21 -26	V09-0127-40 V03-0405-05 V09-0145-30 V03-0402-05 V01-1124-10	2SK105(H,J) 2SC945(A) UPA68H(L,M),2SK105A(GR,BL) 2SC535(B,C),2SC785(R,O) 2SA1124(Q,R,S)	
Q27 ,28 Q29 ,30 Q31 ,32 Q33 ,34 Q35 ,36	V03-2632-10 V03-0507-05 V01-0221-05 V01-0733-90 V03-0405-05	2SC2632(Q,R,S) 2SC1567(Q,R,S) 2SA794(Q,R,S) 2SA733(A) 2SC945(A)	
Q37 -39 Q40 Q41 Q42 Q43 ,44	V01-0733-90 V03-0405-05 V02-0724-00 V01-0733-90 V09-0144-40	2SA733(A) 2SC945(A) ZSB724 2SA733(A) 2SK163(N)	
Q45 TH1 ,2	V01-0221-05 V22-0027-05	2SA794(Q,R,S) 5TP-41L	
SUB (X13-2950-10)			
D1 -5 201 18 202 18	B30-0258-05 E06-0510-05 E13-0429-05	LED DIN CONNECTOR PHONO JACK	*
S1 S2	S42-5020-05 S90-0038-05	PUSH SWITCH SLIDE SWITCH (REC OUT)	*
SUB (X13-3020-11)			
C1 ,2 C3 ,4	C52-1747-26 C25-1447-57	CERAMIC 0.0047UF K ELECTRO 4.7UF 25WV	
Q1 ,2	V01-0992-00	2SA992	
SUB (X13-3090-00)			
Q1 ,2 Q3 ,4 TH1 ,2	V01-0733-90 V03-0405-05 V22-0027-05	2SA733 2SC945 5TP-41L	

SEMICONDUCTOR SUBSTITUTION

SEMICONDUCTOR SUBSTITUTION	
SEMICONDUCTOR	SUBSTITUTION
2SA733(A)	2SA999
2SA794(Q,R,S)	2SA850 *
2SC945	2SC2320
2SC1567(Q,R,S)	2SC1735 *
2SK150A(GR,BL)	μPA68H
WZ-032	XZ-033
WZ-120	XZ-122
WZ-197	XZ-200
WZ-140	YZ-140
WZ-240	XZ-245
1S2076	1S1555

* Caution: when using the substitution, make sure the transistor leads are inserted in the correct position.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

Region	Code
U.S.A.	K
Canada	P
PX (Far East)	U
PX (Europe)	<u>UE</u>
Australia	X
Europe & Scandinavia	E
England	T
South Africa	S
Other Areas	M
Audio Club	H

There is no plan for producing units of S type.

A product of TRIO-KENWOOD CORPORATION

6-17, 3-chome Aobada, Meguro-ku, Tokyo 153, Japan

KENWOOD ELECTRONICS, INC.

1315 E. Watsoncenter Rd, Carson, California 90745, U.S.A.

75 Seaview Drive, Secaucus, New Jersey 07094, U.S.A.

1098 North Tower Lane, Bensenville, Illinois 60106, U.S.A.

TRIO-KENWOOD ELECTRONICS, N.V.

Leuvensesteenweg 504 B-1930 Zaventem, Belgium

TRIO-KENWOOD ELECTRONICS GmbH

Rodolf-Braas-Str. 20, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

5, Boulevard Ney, 75018 Paris, France

TRIO-KENWOOD SVENSKA AB

Kemistvagen 10A, S-183 21 Taby, Sweden

TRIO-KENWOOD (AUSTRALIA) PTY. LTD.

30 Whiting St., Artarmon, N.S.W. 2064, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Room 501, Wang Kee Building, 5th Floor, 34-37, Connaught Road, Central, Hong Kong